

41 Month Natural Gas Crisis has Cost U.S. Consumers Over \$111 Billion

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Executive Summary

The U.S. natural gas crisis began 41 months ago in June, 2000 and has had a staggering direct and indirect economic impact on all consumers, the U.S. economy and especially on manufacturing. Residential, commercial and industrial consumers have paid \$111 billion dollars more for natural gas during the 41 month natural gas crisis when compared to the price paid for the previous 41 month period, an 83 percent increase. The price of crude oil increased only 46 percent during the same time period, which included the period of high oil prices caused by the war in Iraq. Unfortunately, there is no end in sight to these high and sustained natural gas prices that are the highest in the world.

The increased price of natural gas has cost industrial consumers \$57 billion, residential consumers \$33 billion and commercial consumers \$21 billion. Every penny of the \$111 billion could have been prevented and was totally unnecessary. The U. S. is blessed with enormous natural gas reserves yet we do not lift drilling moratoriums.

Drilling for more natural gas and the recent California forest fires are a perfect analogy. In the name of protecting forests, certain groups fought efforts to thin the trees out and to take a balanced approach to managing the forests. Now, everyone knows that balance is needed, that forests should be thinned and there is a price to pay for inaction.

In the case of the forest fires, the people of California became the victim. In the last 41 months, all consumers, including a lot of families with fixed income, became the victim of high natural gas prices. Manufacturing workers, who lost their jobs to overseas manufacturers with cheaper natural gas, also became the victim. The jobs lost may never return.

When prices of natural gas rose significantly in June of 2000, it began to impact manufacturing jobs immediately and still is today. While the economy reported an increase of 160,000 new jobs in October 2003, manufacturing employment fell by another 24,000, the 39th consecutive monthly drop. Since July 2000, the number of factory jobs is down by nearly 2.8 million.

Every U.S. economic recession has been preceded by high energy prices and this recession was no different. IECA believes the natural gas crisis started in June 2000.

Government officials say the U.S. recession officially began in March 2001.

High sustained natural gas prices are a hidden tax on consumers, depressing disposable personal income and savings, and ultimately consumer spending which accounts for two-thirds of the economy. Sustained high natural gas prices impede economic growth and severely impacts competitiveness of industry.

The Real Cost is Much More

The real cost of the crisis is much more than \$111 billion when one considers other direct and indirect impacts of sustained high prices on industrial and residential consumers.

The \$111 billion cost estimate does not include:

- Consumption of natural gas by electric utilities and the ultimate impact high prices have caused by increasing the price of electricity.
- Lower demand for natural gas by manufacturing because of “demand destruction,” caused by high prices.
- Reduction of operating rates in the manufacturing sector and the resultant loss of efficient capacity utilization caused by high natural gas prices.
- Impact to downstream customers. For example, farmers have reduced their consumption of high cost natural gas based fertilizers resulting in lower agricultural crop yields, which leads to higher food prices for all Americans.
- Loss of manufacturing jobs, plant shutdowns, corporate bankruptcies, loss of capitalization, loss of competitiveness and profitability.
- Impact to residential electricity bills, higher food cost and the difficult choices for fixed income families.
- Financial loss of corporate related tax income and higher heating and cooling bills on states, cities, county governments, school systems and financial pressure on human services.

The Impact of High Natural Gas Costs on Manufacturing is Significant The impact of high energy costs on manufacturing is significant and it contributed greatly to reduce manufacturing after-tax profits during the 41 month natural gas crisis. According to Bureau of Census data, manufacturing profits fell 47.7 % during the time period of the natural gas crisis versus the previous 41 months.

Manufacturing plays an important role in the economic health of our country and we must recognize that affordable energy, including natural gas, is essential. In the past, the affordability of U.S. energy was a key factor in manufacturing building their factories here. Now, the non-globally competitive price of natural gas and natural gas feedstock is forcing manufacturing companies to produce their products elsewhere.

According to the National Association of Manufacturers, manufacturing accounts for 22 % of GDP growth, contributes one-third of the economy’s productivity growth, creates more business activity and jobs in other sectors than any other industry, performs 62 % of U.S. private sector R&D, pays the highest wages –18 % higher than the national average

and makes two-thirds of all U.S. exports.

National Energy Policy Implications

The blame for these high prices does not rest on the oil and gas companies, it rests mostly on federal and state policy makers. Congress and states must work together to break the impasse between the environment and the need to increase supplies of natural gas.

Unfortunately, the end of the crisis is no-where in sight. It is the belief of the Industrial Energy Consumers of America (IECA) that the Energy Policy Act of 2003 will not by itself resolve this crisis. It will neither increase near-term production of natural gas nor increase the use of Clean Coal-based electricity generation. The legislation includes many provisions that will help but these will not be enough to turn this situation around. More is needed.

Resolving the crisis takes a combination of policies. We must increase production of natural gas and increase use of coal for base-load electricity generation. The high price of natural gas is due to the combination of relatively flat natural gas production despite increasing rig count and the significant increase in demand for natural gas by the electric utility industry. Just one 500 MW gas fired power plant consumes the equivalent amount of gas to fuel 842,308 homes! Approximately 90 percent of all recently installed power plants have been fueled with natural gas. This enormous increased demand without an equivalent increase in supply has increased the price of natural gas on all consumers.

Using natural gas to produce electric power increases the cost of natural gas and electricity for all consumers. Increasing use of coal for power generation solves this problem. Use of clean coal technology allows use of coal in power generation in an environmentally acceptable manner.

Price Impact Calculation Methodology

The \$111 billion price impact calculation uses the monthly average of the daily published closing price of the Henry Hub spot index price, considered to be the most widely used cash price index in the United States. The 41 month average price from June 2000 to October 2003 was \$4.34/MM Btu. The previous 41month average price from January 1997 through May 2000 was \$2.37/MM Btu. This means consumers paid \$1.97/MM Btu more for natural gas during the natural gas crisis, an 83 percent increase.

REPORT DATA

Average Price Calculation

| | Dollars / MM Btu |
|---|------------------|
| Average price of 41 months prior to June, 2000 | \$2.37 |
| Average price of 41 months starting with June, 2000 | \$4.34 |
| Price Difference | \$1.97 |
| Percent change | 83% |

Price Impact Calculation on Industrial Consumers

| Year | Months | Annual Volume, TCF* | 41 Month Volume, TCF |
|------|--------|------------------------|-------------------------|
| 2000 | 7 | 9.40 | 5.48 |
| 2001 | 12 | 8.45 | 8.45 |
| 2002 | 12 | 8.29 | 8.29 |
| 2003 | 10 | 8.06 | 6.72 |

| | |
|--------------|------------------|
| Total Volume | 28.94 TCF |
| Total MMBtu | 28,940,000,000 |
| Cost Impact | \$57,126,148,292 |

Price Impact Calculation on Residential Consumers

| Year | Months | Annual Volume, TCF* | 41 Month Volume, TCF |
|------|--------|------------------------|-------------------------|
| 2000 | 7 | 4.99 | 2.911 |
| 2001 | 12 | 4.78 | 4.78 |
| 2002 | 12 | 4.92 | 4.92 |
| 2003 | 10 | 5.07 | 4.225 |

| | |
|--------------|------------------|
| Total Volume | 16.84 TCF |
| Total MMBtu | 16,835,833,333 |
| Total | \$33,233,113,739 |

Price Impact Calculation on Commercial Consumers

| Year | Months | Annual Volume, TCF* | 41 Month Volume, TCF |
|------|--------|------------------------|-------------------------|
| 2000 | 7 | 3.22 | 1.878 |
| 2001 | 12 | 3.04 | 3.04 |
| 2002 | 12 | 3.12 | 3.12 |
| 2003 | 10 | 3.15 | 2.625 |

| | |
|--------------|------------------|
| Total Volume | 10.66 TCF |
| Total MMBtu | 10,663,333,333 |
| Total | \$21,048,899,837 |

* Energy Information Agency

Henry Hub Monthly Average of Daily Spot Natural Gas Price

| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|-----|--------|--------|--------|--------|--------|--------|--------|
| Jan | \$3.99 | \$2.25 | \$1.80 | \$2.36 | \$9.91 | \$2.61 | \$4.96 |
| Feb | \$2.96 | \$2.04 | \$1.81 | \$2.61 | \$6.22 | \$2.03 | \$5.66 |
| Mar | \$1.78 | \$2.26 | \$1.64 | \$2.61 | \$5.03 | \$2.39 | \$9.11 |
| Apr | \$1.85 | \$2.32 | \$1.88 | \$2.89 | \$5.35 | \$3.40 | \$5.14 |
| May | \$2.51 | \$2.27 | \$2.35 | \$3.08 | \$4.87 | \$3.36 | \$5.12 |
| Jun | \$2.31 | \$2.03 | \$2.23 | \$4.37 | \$3.73 | \$3.37 | \$5.95 |
| Jul | \$2.16 | \$2.37 | \$2.28 | \$4.36 | \$3.16 | \$3.26 | \$5.30 |
| Aug | \$2.19 | \$1.93 | \$2.62 | \$3.83 | \$3.19 | \$2.95 | \$4.69 |
| Sep | \$2.57 | \$1.63 | \$2.90 | \$4.62 | \$2.34 | \$3.27 | \$4.93 |
| Oct | \$3.16 | \$2.07 | \$2.55 | \$5.29 | \$1.86 | \$3.72 | \$4.44 |
| Nov | \$3.30 | \$2.00 | \$3.06 | \$4.50 | \$3.16 | \$4.13 | |
| Dec | \$2.55 | \$2.12 | \$2.14 | \$6.02 | \$2.28 | \$4.13 | |

1 MCF = MM Btu